

ABSTRACT OF THE DISCLOSURE

An exhaust flow system for use with a turbofan jet engine that provides separate fan flow and core flow streams that are not mixed. The system includes a fan nozzle and a primary flow nozzle. The primary flow nozzle includes a downstream edge portion that is either beveled with one or more beveled surfaces, or that contains a curving edge surface or a combination of a beveled edge and a curved edge to help direct noise generated by the jet engine upwardly away from a ground surface during take-off and landing procedures. The primary exhaust nozzle can also be orientated with an elongated lip portion thereof formed by the beveled edge surface such that the lip portion is orientated between a top dead center and a bottom dead center position, to thus help direct noise away from a cabin area of a fuselage of a mobile platform during cruise conditions.